

My Favourite things: The emerging IoT and the impacts that are expected in Social care in the Technology adoption of Multi-Platform AT elements.

Speaker: Stephen Purdham *

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Other authors: none

3rings Care Ltd, Stoke-on-Trent, UK

1. Overview

This presentation will look at the potential impact that the expected 50 billion things connected to the Internet by 2020 could have on social care. Building on experiences gained with the 3rings patented Plug & platform in creating distributed family care.

Chairman of 3rings Care Ltd and named co-inventor of 3rings Plug and Platform patent.

2. Background

Imagine an older Mum making a cup of tea or Dad turning on the TV to watch his favourite show while at home. It could be comforting for the whole family to be told their ageing loved ones are OK each day, regardless of distance and time pressures.

That's what the 3rings plug and its associated Internet Platform does.

Elderly population growth needs support to maintain independence in their homes rather than more costly & isolated care facilities.

Existing solutions are Phone-Only-Telephone-Services based using red buttons/call centres with minimum/no family involvement, over 1.7m 'red buttons' are installed in the UK but there are fundamental issues with these services for users such as:

- Being *badged* as Frail.
- Unwillingness to wear a device.
- Unwillingness/Unable to use a device.
- Lack of family involvement.

3rings connects the unconnected ageing population to their Internet enabled families introducing Distributed Family Care (DFC) providing a solution for 'lower risk' loved ones or earlier provision of care; Innovation comes with the integration of individual units to bring families into creating a care umbrella giving No 'Badge of infirmity' and using what will be common domestic devices.

The key for the impact in Social Care of the Internet of Things (IoT) is the flow, analysis and interpretation of the data to indicate Activity of Daily Life (ADL).

Understanding ADL allows for the assessment of care requirements and family interventions based upon 'rules' and emerging patterns derived from providing an ambient intelligence to enable an early warning of potential issues allowing for greater independence and dignity of the 'loved ones'

In a commercially viable environment the intent is to present 3rings findings and understanding on:

- The acceptance of 'things' within an elder's home and the great care that is needed not to create a 'badge of frailty'.
- The power of a single data point and how families' viewpoints are affected especially with positive affirmation.
- The expectation of impact on social care on a flow of multiple points of data from IoT devices.
- The steps from using existing home appliances to become sensors, through the proliferation and then death of independent sensors to the eventual integration of sensor output from generic domestic appliances.

3. Methods

Following the original design and development of the 3rings Plug and IoT Platform the prime methods have not been formal research but experiential with feedback directly from customers and their understanding of:

- Elders reactions to technology
- Impact on families of using daily activity of life to provide positive reinforcement that their ageing loved ones are OK.
- Where IoT devices can play a vital role in establishing Activity of Daily Life and how those devices are expected to evolve
- The power of single data points on what ADL has meant for families and how the wide variations of how families have applied the data for their own specific circumstances.

3.1 Ethical statement

Customers' feedback was used with permission.

4. Results

With the simple application of a single data point in delivering distributed family care lives have been saved, loved ones have been cared for and families have been given tools to cope with an increasing pressure from the need to provide independence and dignity to their ageing loved ones regardless of distance and time pressures.

Family feedback gives 3rings a Netpromoter Score of +89 which demonstrates that families love the concept and are willing to highly recommend the solution.

5. Discussion

The Presentation will review what 3rings care has found in bringing to market a patented invention of the 3rings Plug and IoT Platform but in doing so will expand upon the realities of the market.

Providing families with a daily means to 'know' their loved ones are active provides simple coping mechanisms for them regardless of distance and time pressures.

Single data points provides qualitative feedback to families that all is OK. The impact of positive affirmation that their loved ones are OK each day provides a environment to reduce stress and worry on families whilst at the same time provides the means to deliver a safety net to look after ageing loved ones.

With the advent of IoT then multiple data points will allow for the safety net to be more granular and encompassing however it is

unlikely to provide any additional comfort to families beyond the initial daily 'all is OK'.

The evolution that will be discussed will be the emergence of home sensors which will then expected to be replaced, over time, by generic household appliances with embedded sensors providing flows of small data.

It is the data and its meaning that provides the ability to provide Independence to ageing population and aid supporting them and their families.

6. Conclusion

Activity of Daily Life can have a significant part to play in providing independence and dignity to ageing and vulnerable loved ones and their families. The IoT makes monitoring ADL much more practical than previously.

The 'things' themselves rapidly become irrelevant in providing Independence but their data contribution and the ability to apply rules and then ambient intelligence to that data is expected to have the biggest impact on Social care.

3rings has learnt by commercial experience with real families and ageing loved ones the impact of using ADL to save lives and provide comfort to families. The presentation aims to share that experience.

Keywords:

IoT, Internet of Things, Sensors, technology, social care, activities, daily life

* steve@3rings.co.uk